

Supplier:
Permatex, Inc.
10 Columbus Blvd.
Hartford, CT 06106
Telephone: 1-87-Permatex
(877) 376-2839

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 84112 PERMA POXY 90 MIN MULTI-METAL EPOXY 25ML SYR
Item No: PTX203010B
Product Type: Curing agent

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | Percent | ACGIH 8 Hr. TWA: | OSHA 8 Hr. TWA: |
|--|---------|---------------------------------|---------------------------------|
| CALCIUM CARBONATE 471-34-1 | 40-50 | 10 mg/m3 dust | 15 mg/m3 dust; 5 mg/m3 respir |
| NEPHELINE SYENITE 37244-96-5 | 5-15 | 10 mg/m3 TWA inhal. | 5 mg/m3 TWA respir. |
| BARIUM SULFATE 7727-43-7 | 1-10 | 10 mg/m3 total dust | 5 mg/m3 resp. dust |
| NONYLPHENOL 25154-52-3 | 1-10 | | |
| FORMALDEHYDE, POLYMER WITH BENZENEAMINE, HYDROGENATED 135108-88-2 | 1-10 | | |
| BENZYL ALCOHOL 100-51-6 | 1-10 | | |
| TITANIUM DIOXIDE 13463-67-7 | 1-10 | 10 mg/m3 | 15 mg/m3 total dust |
| TRIETHYLENETETRAMINE 112-24-3 | 0.5-5.0 | | |
| SILICA, QUARTZ 14808-60-7 | 0.5-1.0 | 0.1 mg/m3 TWA (respirable dust) | 0.1 mg/m3 TWA (respirable dust) |

3. HAZARDS IDENTIFICATION

Toxicity:

May cause eye, skin and respiratory irritation. May be harmful if swallowed. The aminophenol can cause severe irritation and may be corrosive on prolonged contact. It may be a sensitizer. It can also be corrosive to eye tissue, leading to permanent injury including blindness. It may irritate the respiratory tract and may cause delayed lung damage upon overexposure to fumes or vapors. It can cause fatigue, muscular weakness, labored breathing or gastrointestinal irritation if swallowed. The relatively low concentration of the aminophenol in the product may minimize some or all of these effects. This product contains encapsulated silicon dioxide (quartz silica). No exposure to free respirable silica is anticipated during normal use of this product. Silica may be released by grinding or machining of coated material. Use NIOSH-approved dust/mist respirator when grinding or machining. When heated to temperatures above 300 degrees F. in the presence of air, this product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Safe handling conditions may be maintained by keeping vapor concentrations below the OSHA permissible limit for formaldehyde. May cause skin sensitization.

Primary Routes of Entry:

Signs and Symptoms of Exposure:

Eye and skin contact, ingestion, inhalation.

Eyes: Exposure to liquid or vapor causes mild eye irritation. Symptoms may include burning, tearing, redness, stinging, blurred vision and corneal injury. Ingestion may cause nausea and vomiting. Inhaling may cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression. Inhalation overexposure may cause irritation, coughing and flu-like symptoms. Skin redness.

| Ingredients | Percent | NTP: | ACGIH Carcinogens | IARC: |
|-------------|---------|------|-------------------|-------|
|-------------|---------|------|-------------------|-------|

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Item No: PTX203010B

| | | | | |
|--------------------------------|---------|---|-----------------------------|------------------------|
| BARIUM SULFATE 7727-43-7 | 1-10 | | Group A4 - Not classifiable | |
| BENZYL ALCOHOL 100-51-6 | 1-10 | male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence | | |
| TITANIUM DIOXIDE 13463-67-7 | 1-10 | | | Group 3 |
| SILICA, QUARTZ 14808-60-7 | 0.5-1.0 | Known Carcinogen | | Group 1; Vol. 68; 1997 |

Medical Conditions Recognized as Being Aggravated by Exposure: Persons with respiratory problems such as emphysema and asthma should avoid inhalation. Preexisting skin disorders.

4. FIRST AID MEASURES

Ingestion:

If swallowed, give at least 3-4 glasses of water, but do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact:

Remove product and immediately flush affected area with water for 15 minutes. Remove contaminated clothing and shoes. Destroy contaminated leather apparel. Cover the affected area with a sterile dressing and seek medical care. Do not apply greases or ointments. Launder contaminated clothes prior to reuse.

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C):

>200 degrees F.

Recommended Extinguishing Media:

Water fog, carbon dioxide, foam, dry chemical.

Special Fire-Fighting Procedures:

Firefighters should wear self-contained breathing apparatus. Use water spray to cool exposed containers.

Hazardous Products Formed by Fire or Thermal Decomposition:

Oxides of nitrogen, Hydrogen sulfide, Aldehydes, Ammonia

Unusual Fire/Explosion Hazards:

Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion.

Lower Explosive Limit:

Not determined.

Upper Explosive Limit:

Not determined.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures:

Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage:

Store in a cool, dry area. Keep away from oxidizers.

Handling:

Avoid contact with skin and eyes. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Discard contaminated leather gloves and shoes. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes:

Safety glasses or goggles.

Skin:

Neoprene or nitrile gloves recommended.

Ventilation:

General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.

Respiratory Protection:

An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Black liquid

Odor:

Irritating odor.

Boiling Point (°F):

Not determined

pH:

Alkaline

Product Name: 84112 PERMA POXY 90 MIN MULTI-METAL EPOXY 25ML SYR
Item No: PTX203010B

| | |
|-------------------------------|------------------------|
| Solubility in Water: | Moderate |
| Specific Gravity: | Not Determined |
| VOC Content(Wt.%): | Not determined |
| Vapor Pressure: | Not Determined |
| Vapor Density (Air=1): | Heavier than air |
| Evaporation Rate: | <1 (butyl acetate = 1) |

10. STABILITY AND REACTIVITY

| | |
|--|--|
| Chemical Stability: | STABLE |
| Hazardous Polymerization: | WILL NOT OCCUR |
| Incompatibilities: | Can react vigorously with strong oxidizing agents, mineral acids and strong mineral and organic bases, especially primary and secondary aliphatic amines. Reaction with some curing agents produces considerable heat. |
| Conditions to Avoid: | None anticipated |
| Hazardous Products Formed by Fire or Thermal Decomposition: | Oxides of nitrogen, Hydrogen sulfide, Aldehydes, Ammonia |

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

| | |
|--|--|
| Recommended Method of Disposal: | Disposal should be made in accordance with federal, state and local regulations. |
| US EPA Waste Number: | Not Regulated |

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

| | |
|---------------------------|--------------|
| DOT Shipping Name: | Unrestricted |
| Hazard Class: | NONE |
| UN/ID Number: | None |
| Marine Pollutant: | None |

IATA

| | |
|------------------------------|--------------|
| Proper Shipping Name: | Unrestricted |
| Class or Division: | None |
| UN/NA Number: | NONE |

IMDG

| | |
|-------------------------|--------------|
| Proper Shipping: | Unrestricted |
| Hazard Class: | None |
| UN Number: | None |

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
BARIUM COMPOUNDS

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

| | |
|---------------------------------------|--|
| Estimated NFPA Rating: | HEALTH 2, FLAMMABILITY 1, REACTIVITY 0 |
| Estimated HMIS Classification: | FLAMMABILITY 1, REACTIVITY 0, HEALTH 2 |

Product Name: 84112 PERMA POXY 90 MIN MULTI-METAL EPOXY 25ML SYR
Item No: PTX203010B

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Denise Boyd Health and Safety Manager
Company: Permatex. Inc. 10 Columbus Blvd. Hartford, CT 06106
Telephone Number: 1-87-Permatex (877) 376-2839
Revision Date: 08/31/2001
Revision Number: 0

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 84112 PERMA POXY 90 MIN MULTI-METAL EPOXY 25ML SYR
 Item No: PTX202007B
 Product Type: Epoxy resin

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | Percent | ACGIH 8 Hr. TWA: | OSHA 8 Hr. TWA: |
|--|---------|---------------------------|-------------------------------|
| CALCIUM CARBONATE 471-34-1 | 30-40 | 10 mg/m3 dust | 15 mg/m3 dust; 5 mg/m3 respir |
| EPOXY RESIN (EPICHLOROHYDRIN, BISPHENOL A) 25085-99-8 | 30-40 | Not established | Not established |
| BARIUM SULFATE 7727-43-7 | 10-20 | 10 mg/m3 total dust | 5 mg/m3 resp. dust |
| NEPHELINE SYENITE 37244-96-5 | 1-10 | 10 mg/m3 TWA inhal. | 5 mg/m3 TWA respir. |
| EPOXY RESIN 68413-24-1 | 1-10 | | |
| SILICA, QUARTZ 14808-60-7 | 0.5-1.0 | 0.05 mg/m3 TWA respirable | 0.1 mg/m3 TWA respirable |

3. HAZARDS IDENTIFICATION

Toxicity:

May cause eye and skin irritation. May cause skin sensitization. Exposure to vapors or mist may result in irritation of the respiratory tract. When heated to temperatures above 300 degrees F. in the presence of air, this product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Safe handling conditions may be maintained by keeping vapor concentrations below the OSHA permissible limit for formaldehyde. This product contains encapsulated silicon dioxide (quartz silica). No exposure to free respirable silica is anticipated during normal use of this product. Silica may be released by grinding or machining of coated material. Use NIOSH-approved dust/mist respirator when grinding or machining.

Primary Routes of Entry:

Eye and skin contact, ingestion, inhalation.

Signs and Symptoms of Exposure:

May cause skin irritation. Repeated skin contact may cause allergic skin reactions. Slightly irritating to eyes, but does not injure eye tissue. Inhalation overexposure may cause irritation, coughing and flu-like symptoms.

| Ingredients | Percent | NTP: | ACGIH Carcinogens | IARC: |
|--|---------|------------------|-----------------------------|--|
| EPOXY RESIN (EPICHLOROHYDRIN, BISPHENOL A) 25085-99-8 | 30-40 | | | Bisphenol A; Group 3, Vol. 71, pg 1285; 1999 |
| BARIUM SULFATE 7727-43-7 | 10-20 | | Group A4 - Not classifiable | |
| SILICA, QUARTZ 14808-60-7 | 0.5-1.0 | Known Carcinogen | | Group 1; Vol. 68; 1997 |

Medical Conditions Recognized as Being Aggravated by Exposure:

May aggravate preexisting dermatitis. Persons with respiratory problems such as emphysema and asthma should avoid inhalation.

Product Name: 84112 PERMA POXY 90 MIN MULTI-METAL EPOXY 25ML SYR
Item No: PTX202007B

4. FIRST AID MEASURES

Ingestion: If swallowed dilute with 1-2 glasses of milk or water and then induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): 400 degrees F.

Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.

Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Use water spray to cool exposed containers.

Hazardous Products Formed by Fire or Thermal Decomposition: Carbon monoxide, Aldehydes, Phenolics

Unusual Fire/Explosion Hazards: None

Lower Explosive Limit: Not determined.

Upper Explosive Limit: Not determined.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Prevent from entering waterways or sewers.

7. HANDLING AND STORAGE

Storage: Store away from heat. Store in a cool, dry area.

Handling: Avoid contact with vapors from heated material. Avoid contact with skin and eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.

Skin: Chemical resistant gloves. Launder contaminated clothing before reuse.

Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.

Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black liquid

Odor: Epoxy odor.

Boiling Point (°F): Greater than 300 degrees F.

pH: Does not apply

Solubility in Water: Negligible

Specific Gravity: Not determined

VOC Content(Wt.%): None

Vapor Pressure: Not applicable

Vapor Density (Air=1): Heavier than air

Evaporation Rate: <1 (butyl acetate = 1)

10. STABILITY AND REACTIVITY

Chemical Stability: STABLE

Hazardous Polymerization: WILL NOT OCCUR

Incompatibilities: Acids, Avoid contact with bases and strong oxidizers. Amines.

Conditions to Avoid: Excess heating above 150 degrees F. over long periods of time degrades the resin.

Hazardous Products Formed by Fire or Thermal Decomposition: Carbon monoxide, Aldehydes, Phenolics

11. TOXICOLOGICAL INFORMATION

Product Name: 84112 PERMA POXY 90 MIN MULTI-METAL EPOXY 25ML SYR
Item No: PTX202007B

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: NONE

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
BARIUM COMPOUNDS

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 1, REACTIVITY 0
Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.
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Prepared By: Denise Boyd **Health and Safety Manager**
Company: Permatex. Inc. **10 Columbus Blvd. Hartford, CT 06106**
Telephone Number: 1-87-Permatex **(877) 376-2839**
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